



October 31, 2013

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Mary Nichols, Chairperson  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Re: AB 32 Scoping Plan Update – Broadband Infrastructure as a Greenhouse Gas Emission Reduction Strategy

Dear Chairperson Nichols:

On behalf of Valley Vision, we offer this letter to recommend the AB 32 Scoping Plan (Plan) recognize the importance of access to broadband, high-speed Internet, to help achieve the State's greenhouse gas emission reduction goals.

Valley Vision is a nonprofit consultancy that tackles economic, environmental and social issues facing the Sacramento region. Valley Vision is a partner and staff to the Cleaner Air Partnership, a unique alliance that brings together the local business, environmental communities and air districts to improve air quality such that it benefits public health and economic growth.

Valley Vision is managing the "Connected Capital Area" Broadband Consortium, one of 14 regional consortia funded by the California Public Utilities Commission working to expand connections to high-speed Internet within underserved parts of California, which includes urban, rural and suburban areas. Our work includes partnering with the California Emerging Technology Fund to convene and connect the following partners: local government officials; regional stakeholders; state entities such as the California Broadband Council, the California Department of Technology, the Governor's Office of Planning and Research, the Governor's Office of Business and Economic Development (Go-Biz), and the California Telehealth Network; local elected officials leadership organizations, including the League of California Cities, Rural County Representatives of California, California State Association of Counties; and Federal partners such as the United States Department of Agriculture.

As part of this work we have documented how broadband serves as a vitally important infrastructure and enabling technology to achieve emission reduction benefits. This includes areas such as the Smart Grid, the digital technology that allows for two-way communications and improved energy management; reduced vehicle miles traveled associated with telemedicine, telecommuting and many other applications; Intelligent Transportation Systems which manage the flow of traffic to reduce congestion and thus emissions; and the ability to monitor and manage resource-efficient buildings.

The draft update to the AB 32 Scoping Plan is missing an important strategy to help meet the long-term climate goals: there is no specific reference in the plan to the importance of widespread access to broadband infrastructure as a GHG emission reduction strategy. Broadband, or high-speed Internet, enables the transfer of data such that it serves as a critical platform for existing and emerging technologies that will help reduce greenhouse gas emissions. Every region in California needs broadband to help meet their greenhouse gas emission reduction goals and promote sustainable economic prosperity. Of note, many of the communities without broadband access today are disadvantaged and underserved communities.

The following provides some examples of the diverse applications and relevance of broadband to these goals:

#### Importance of Broadband for Agriculture

The agricultural sector is a major economic driver for the California economy, and a dominant economic cluster in many regions throughout the State, including the San Joaquin Valley, the Sacramento Valley, the Bay Area, and the Central Coast. Yet, large areas of these and other regions, especially in rural areas, do not have sufficient Internet access to implement innovative new technologies that will increase agriculture's sustainability across the value chain, from production to processing and distribution. Examples of these technologies include:

- Wireless soil moisture sensors that enable farmers to reduce water usage, which as noted in the Scoping Plan will reduce energy demand and the associated emissions. Some cite that water usage can be reduced by 40% while also increasing yield production; and
- Technologies for real-time monitoring of fertilizer and pesticide usage, food safety in the field, water quality, and other social and environmental justice concerns.

#### Importance of Broadband for Health

Telehealth and telemedicine, using broadband technologies to support remote health care, have been found to make better use of staff time, reduce time spent traveling, and assist in reducing carbon dioxide emissions. The University of California, Davis, found each telemedicine consultation saved an average of 200 miles of travel each way for patients, resulting in 4.7 million avoided vehicle miles traveled, an equivalent of 1,700 metric tons of reduced carbon dioxide emitted to the atmosphere. With a growing population and the implementation of the Affordable Care Act which will increase demand for services, broadband will be critical to enable the delivery of health care services and reduce vehicle miles traveled.

#### Importance of Broadband for Economic Prosperity

Regional Industry Clusters are the focus of the economic strategy in the San Joaquin Valley, one of the poorest regions in the country. Every cluster in the Valley - agriculture, water, energy, manufacturing, health and logistics clusters –

is linked to each other, and they all say they need better broadband as an implementation priority. They cannot deploy innovative technologies to reduce emissions, water and energy use; improve air quality and health; and increase prosperity without high speed Internet. As an example of this potential, federal labs and other federal agencies such as USDA Rural Development are working with Valley stakeholders on broadband deployment for water management technology and agricultural sustainability.

#### Importance of Broadband to Support Alignment of State Goals

We are working with the Governor's Office of Planning and Research (OPR) on the Environmental Goals and Policy Report, which includes the importance of broadband infrastructure in its vision for California's future, and with integrating broadband into overall transportation and other infrastructure planning, such as for General Plans and other policy documents.

Broadband is an important infrastructure for Metropolitan Planning Organizations to implement Sustainable Community Strategies to meet their Senate Bill 375 emission reduction targets, including through agricultural land preservation. The benefits of broadband-enabled technologies will help keep agriculture economically viable in a highly competitive global market place, help meet environmental and health standards, and support the development of local and regional food systems, thereby keeping agricultural lands in production. This will have a positive land use and transportation impact.

The State of California has set broadband-related goals that by 2015, 98% of the households in CA will have access to an Internet connection and 80% of the households will have at-home subscriptions. At this time ~96.2% have Internet access and 69% have "adopted" the technology. It is important that Californians have home Internet access to receive real time air quality information and updates; access health care information; access health specialists remotely using telemedicine; telecommute; manage energy usage; apply for jobs; and utilize emerging business setting applications – all of which have the opportunity to reduce greenhouse gas emissions.

#### Recommendations

As the AB 32 Scoping Plan is the guiding document of state policies and programs to reduce greenhouse gas emissions, the final Scoping Plan Update should include broadband-enabled technologies and incentives to promote deployment and use of broadband, as a strategy to meet AB 32's greenhouse gas emission reduction goals.

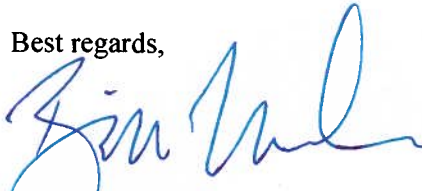
Valley Vision appreciates the opportunity to provide input on the Plan and we recommend the final version include the following:

Broadband (high-speed Internet access) is an essential 21st Century infrastructure and a necessity for California's future global competitiveness, prosperity, and high quality of life. The use of diverse broadband-driven applications has the potential to reduce greenhouse gas

emissions in the sectors of focus in the AB 32 Scoping Plan including energy, transportation, agriculture, water, waste, natural resources and land use. However, connectivity and usage gaps exist in rural and low-income urban communities. Implementation of the AB 32 Scoping Plan will be in collaboration with entities promoting the deployment and use of broadband infrastructure.

Thank you for your consideration of our comments.

Best regards,



Bill Mueller  
CEO and Managing Partner, Valley Vision



Tara Thronson  
Project Manager, Valley Vision



Trish Kelly  
Principal, Applied Development Economics  
Consultant, Valley Vision